DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-023500 Address: 333 Burma Road **Date Inspected:** 13-May-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Lv Li Qing No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component:** OBG

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the Self-Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

TA YARD, OBG 14E (NWIT # 09118)

This QA Inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows.

SEG3019W-082, 047 SEG3019T-117, 146 SEG3019R-122, 053 SEG3019AW-147, 142, 137, 132, 127, 122, 072, 041 SEG3019AX-007, 012, 017, 022 SEG3019Q-1-040, 041, 043, 049, 051

This Quality Assurance (QA) Inspector observed the following work in progress:

TA YARD

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

OBG Seg 14E:

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3019AE-005 and 012 [X4709B to I-rib on Deck Panel (DP) 3158A, Complete Joint Penetration (CJP) weld at panel point (PP) 125]. The welder is identified as 0501946 and was observed welding in 3G position. ZPMC QC was identified as Mr. Zhu Yuan Yuan. The welding variables recorded by this QC appeared to comply with WPS: B-P-2213-Tc-U4b-FCM-1.

The SMAW process on weld joint no: SEG3019S-178 and 179. The welder is identified as 058087 and was observed welding in 3F position. ZPMC QC was identified as Mr. Zhu Yuan Yuan. The welding variables recorded by this QC appeared to comply with WPS: B-P-2213-FCM-1.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3019E-1-142 [Block out bottom plate SA 3340B to Floor Beam (FB) diaphragm X4677C, CJP weld at PP128.3]. The welder is identified as 051356 and was observed welding in 3G position. ZPMC QC was identified as Mr. Zhu Yuan Yuan. The welding variables recorded by this QC appeared to comply with WPS: B-T-2233-ESAB.

The SMAW process on weld joint no: SEG3019AE-052 and 053. The welder is identified as 037723 and was observed welding in 4F position. ZPMC QC was identified as Mr. Zhu Yuan Yuan. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-FCM-1.

The SMAW process on weld joint no: SEG3019AF-038 and 039. The welder is identified as 068917 and was observed welding in 4F position. ZPMC QC was identified as Mr. Zhu Yuan Yuan. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-FCM-1.

Repair welding of weld joint no: SEG3019C-008. The welder is identified as 066733 and was observed welding in the 4G position. Welding process was identified as SMAW. ZPMC QC was identified as Mr. Zhu Yuan Yuan. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-4G(4F)-FCM-Repair-1. Repair welding was done as per Critical Welding Repair (CWR) Report: B-CWR 2924 Rev-0.

Repair welding of weld joint no: SEG3019V-003. The welder is identified as 068091 and was observed welding in the 2G position. Welding process was identified as SMAW. ZPMC QC was identified as Mr. Zhu Yuan Yuan. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-2G(2F)-FCM-Repair-1. Repair welding was done as per Critical Welding Repair (CWR) Report: B-CWR 2878 Rev-0.

Repair welding of weld joint no: SEG3019D-2-193, 198. The welder is identified as 037997 and was observed welding in the 3G position. Welding process was identified as SMAW. ZPMC QC was identified as Mr. Zhu Yuan Yuan. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-3G(3F)-FCM-Repair-1. Repair welding was done as per Welding Repair Report (WRR): B-WR 20931 Rev-0.

Repair welding of weld joint no: SEG3019*-001. The welder is identified as 216086 and was observed welding in the 4G position. Welding process was identified as SMAW. ZPMC QC was identified as Mr. Zhu Yuan Yuan. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-4G(4F)-FCM-Repair-1. Repair

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

welding was done as per Welding Repair Report (WRR): B-WR 20948 Rev-0.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang: 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Umesh	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer